

ARISE - C-130 Hercules 09/05/14 Science Report

Aircraft:

[C-130H Hercules #439](#) ([See full schedule](#))

Date:

Friday, September 5, 2014

Mission:

ARISE

Mission Location:

Arctic Ocean

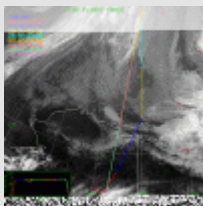
Mission Summary:

140W Sea Ice Flight - Flight#2

A ridge of high pressure splitting two lows to either side opened a generally clear view of sea-ice today along the 140N line. The models and the trends in satellite imagery predicted this well, and overall the weather revealed the same. We took advantage of the opportunity and captured one of the Operation IceBridge Sea-ice team's highest priority flights ? a long transect northbound across the sea-ice at 140W to 80.5N. This 140W line was sampled by the Seasonal Ice Zone Reconnaissance Survey (SIZRS) in July, and will be revisited by them in late September. Coordinated work with this group will help further understand sea ice dynamics. There was a large area of low-level stratus along the beginning of the line, but otherwise it was mostly clear below the aircraft, with some occasional haze near the C-130 altitude (~24 kft). Good data were also obtained from LVIS along the direct transit back to Fairbanks until reaching about 74N. A series of pitch and roll were also performed for LVIS over the sea just north of the Alaska coast and the flight ended with an overpass of the ramp at Eielson at 6000 ft for LVIS GPS calibration.

Images:

September 5, 2014 Figure 1



[Read more](#)

September 5, 2014 Figure 2



[Read more](#)

September 5, 2014 Figure 3



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Submitted by:

William L. Smith Jr. on 09/06/14

Related Flight Report:

C-130 Hercules 09/05/14 - 09/06/14

Flight Number:

140W Sea Ice - Flight #2

Payload Configuration:

ARISE

Nav Data Collected:

No

Total Flight Time:

7.1 hours

Submitted by:

Cate Easmunt on 09/05/14

Flight Segments:

From:	PAEI	To:	PAEI
Start:	09/05/14 20:15 Z	Finish:	09/06/14 03:20 Z
Flight Time:	7.1 hours		
Log Number:	141002	PI:	Christy Hansen
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		

Flight Hour Summary:

	141002	151004
Flight Hours Approved in SOFRS	229	
Flight Hours Previously Approved		88.7
Total Used	140.3	18.2
Total Remaining		70.5

151004 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
10/02/14 - 10/03/14	Cal Flight	Science	8.6	8.6	80.1
10/04/14	Transit	Transit	9.6	18.2	70.5

Source URL: https://airbornescience.nasa.gov/science_reports/ARISE_-_C-130_Hercules_09_05_14_Science_Report?destination=node/24348

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Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

141002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
08/24/14	Engineering Check Flight	Check	2.8	2.8	226.2
08/29/14	Boom Calibration Flight	Check	0.5	3.3	225.7
08/30/14	Project Check Flight	Check	5.2	8.5	220.5
09/01/14	Transit (1 of 2)	Transit	8.7	17.2	211.8
09/02/14	Transit (2 of 2)	Transit	6.6	23.8	205.2
09/04/14 - 09/05/14	Arctic Ocean - Flight #1	Science	6.6	30.4	198.6
09/05/14 - 09/06/14	140W Sea Ice - Flight #2	Science	7.1	37.5	191.5
09/06/14 - 09/07/14	Ice ZigZag-Terra - Flight #3	Science	7.1	44.6	184.4
09/07/14 - 09/08/14	CERES Gridbox - Flight #4	Science	8.4	53	176
09/09/14 - 09/10/14	CERES Gridbox - Flight #5	Science	7.7	60.7	168.3
09/10/14 - 09/11/14	MIZ Lawnmower - Flight #6	Science	8.8	69.5	159.5
09/11/14 - 09/12/14	CERES Gridbox - Flight #7	Science	7.5	77	152
09/13/14 - 09/14/14	CERES Gridbox - Flight #8	Science	8.3	85.3	143.7
09/15/14 - 09/16/14	CERES Gridbox - Flight #9	Science	8.1	93.4	135.6
09/16/14 - 09/17/14	Radiation Wall Pattern - Flight #10	Science	8.3	101.7	127.3
09/17/14 - 09/18/14	CERES Gridbox - Flight #11	Science	7.2	108.9	120.1
09/18/14 - 09/19/14	Sea Ice Albedo/CryoSat - Flight #12	Science	8.6	117.5	111.5
09/19/14 - 09/20/14	Radiation Wall Pattern - Flight #13	Science	8.3	125.8	103.2
09/21/14 - 09/22/14	Sea Ice & Radiation - Flight #14	Science	8.2	134	95
09/24/14 - 09/25/14	Gridbox TOA+Surface - Flight #15	Science	6.3	140.3	88.7